In the Claims

1 (original). A material for separating an analyte from an undesired constituent, which material comprises a solid phase and a coating,

wherein the solid phase is capable of binding the undesired constituent; and

wherein the coating covers the exposed surface of the solid phase to an extent that any binding of the solid phase to the analyte is impeded.

2 (currently amended). [[A]] The material according to claim 1, wherein the solid phase in the absence of the coating is capable of binding the analyte.

3 (currently amended). [[A]] The material according to claim 2, wherein:

a) more than 50% undesired constituent binds the solid phase; and

b) less than 50% analyte binds the solid phase.

4 (currently amended). [[A]] The material according to claim 3, wherein:

a) more than 90% undesired constituent binds the solid phase; and

b) less than 10% analyte binds the solid phase.

5 (currently amended). [[A]] The material according to ~~any preceding claim~~ claim 1, wherein the solid phase has a net negative charge or a net positive charge.

6 (currently amended). [[A]] The material according to ~~any preceding claim~~ claim 1, wherein the solid phase comprises agarose, acrylamide, polyethylene, polycarbonate, polypropylene, polystyrene, acrylic, quartz, rubber, polyester, polyvinyl chloride, polyurethane, nylon, nitrocellulose, glass, hydroxylapatite, fluorapatite, silica, a metal, a metal salt or a metal oxide.

7 (currently amended). [[A]] The material according to claim 6, wherein said metal or the metal present in said metal salt or metal oxide is calcium, iron, chromium, gallium, germanium, lithium, magnesium, manganese, pallidium, cesium, tungsten, selenium, tin, vanadium, molybdenum, nickel, copper, zinc, ~~aluminium~~ aluminum, silver, gold, platinum or lead.

8 (currently amended). [[A]] The material according to ~~any preceding claim~~ claim 1, wherein the solid phase is capable of binding a chelator.

9 (currently amended). [[A]] The material according to ~~any preceding claim~~ claim 1, wherein the solid phase further comprises a magnetic component.

10 (currently amended). [[A]] The material according to claim 9, wherein the solid phase is magnetic hydroxylapatite.

11 (currently amended). [[A]] The material according to ~~any preceding claim~~ claim 1, wherein the solid phase is in the form of a bead, particle, sheet, gel, powder, filter or membrane, or wherein the solid phase is attached to the interior of a tube or vessel, in the packing of a chromatography column, on the lining of a well or pipette tip, or on a surface of an elongated probe capable of entering a vessel.

12 (currently amended). [[A]] The material according to ~~any preceding claim~~ claim 1, wherein the coating comprises a surface treatment material that is attached to the surface of the solid phase by covalent interactions, ionic interactions, encapsulation coating, adsorption, absorption, affinity or hydrophobic interactions.

13 (currently amended). [[A]] The material according to claim 12, wherein the surface treatment material is an oligonucleotide or polynucleotide.

14 (currently amended). [[A]] The material according to claim 13, wherein the oligonucleotide or polynucleotide is a single, double or triple stranded RNA molecule.

15 (currently amended). [[A]] The material according to claim 14, wherein the single, double or triple stranded RNA molecule is an RNA homopolymer, *in vitro* transcribed RNA, total RNA, rRNA, tRNA or mRNA.

16 (currently amended). [[A]] The material according to claim 14 ~~or claim 15~~, wherein at least one 2'-OH group of the single, double or triple stranded RNA molecule is modified.

17 (currently amended). [[A]] The material according to any claim 13, wherein the oligonucleotide or polynucleotide is a single, double or triple stranded DNA molecule.

18 (currently amended). [[A]] The material according to claim 17, wherein the single, double or triple stranded DNA molecule is a DNA homopolymer, synthetic DNA, prokaryotic or eukaryotic genomic DNA, phage DNA, viral DNA or mitochondrial DNA molecules.

19 (currently amended). [[A]] The material according to ~~any one of claims 13 to 18~~ claim 13, wherein the oligonucleotide or polynucleotide is cross linked.

20 (currently amended). [[A]] The material according to ~~any one of claims 13 to 19~~ claim 13, wherein the solid phase comprises magnetic hydroxylapatite[[,]] and the surface treatment material consists of polynucleotides having at least 20 nucleotides.

21 (currently amended). [[A]] The material according to claim 20, wherein the surface treatment material consists of polynucleotides having at least 50 nucleotides.

22 (currently amended). A method for preparing a material ~~as defined in any preceding claim, which method comprises~~ comprising a step of contacting a solid phase with a surface treatment material and, optionally, a step of isolating the material produced.

23 (currently amended). A method for separating an analyte from an undesired constituent, which method comprises:

a) contacting a liquid or gas sample containing ~~the~~ an analyte and undesired constituent with a material ~~as defined in any of claims 1 to 21~~ according to claim 1 under conditions that allow the undesired constituent to bind to the solid phase of the material; and

b) optionally separating the sample containing the analyte from the material~~;~~

~~c) wherein the sample is in the gas or liquid phase~~.

24 (currently amended). [[A]] The method according to claim 23, wherein at least 50% of the undesired constituent present in the sample binds to solid phase of the material, and wherein less that 50% of the analyte present in the sample binds to the solid phase of the material.

25 (currently amended). [[A]] The method according to claim 24, wherein at least 90% of the undesired constituent present in the sample binds to solid phase of the material, and wherein less that 10% of the analyte present in the sample binds to the solid phase of the material.

26 (currently amended). [[A]] The method according to ~~any one of claims 23 to 25~~ claim 23, wherein the undesired constituent is radiolabelled, affinity labeled, enzymatically labelled or fluorescently labeled.

27 (currently amended). [[A]] The method according to ~~any one of claims 23 to 26~~ claim 23, wherein the solid phase of the material is capable of binding a chelator, and wherein the undesired constituent is a chelator.

28 (currently amended). [[A]] The method according to claim 27, wherein the material is a material as defined in claim 20 or claim 21, and optionally wherein the analyte is a polynucleotide.

29 (currently amended). [[A]] The method according to ~~any of claims 23 to 26~~ claim 23, wherein the analyte is a polynucleotide and the undesired constituent is a nucleotide, and wherein the material ~~is a material as defined in claim 20 or claim 21~~ comprises magnetic hydroxylapatite and the surface treatment material consists of polynucleotides having at least 25 nucleotides.

30 (currently amended). [[A]] The method according to claim 26, wherein the sample containing the analyte is separated from the material, and wherein the amount of undesired constituent bound to the solid phase is determined by detection of the radiolabel, affinity label, enzyme label or fluorescent label.

31 (currently amended). [[A]] The method according to claim 30, wherein the undesired constituent is eluted from the solid phase of the material and optionally isolated.

32 (currently amended). [[A]] The method according to ~~any one of claims 23 to 26~~ claim 23, wherein the sample containing the analyte is separated from the material, and wherein the undesired constituent is eluted from the solid phase of the material and optionally isolated.

33-39 (canceled).